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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,430	03/29/2001	Mitchell M. Jackson	3085R	5042

7590 01/12/2006

THE LUBRIZOL CORPORATION
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EXAMINER

TOOMER, CEPHIA D

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/820,430		JACKSON ET AL.	
	Examiner		Art Unit	
	Cephia D. Toomer		1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19 and 33-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19 and 33-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the amendment filed August 2, 2004 in which claims 33-40 and 43 were amended and claim 46 was added.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 119, 33-38, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 6,224,642) in view of JP 58117282.

Daly teaches a fuel additive that is useful in improving fuel economy and reducing engine wear by enhancing the lubricity properties of fuels such as diesel, and gasoline. The additive may comprise a polyetheramine and a mixture of fatty acid esters and alkoxylated amines. The polyetheramine is prepared in substantially the same manner as the polyetheramine of the present invention (see abstract; col. 1, line 5-19; col. 2, lines 3-4). The alcohols useful in making the esters include polyhydric alcohols such as ethylene glycol, and glycerol (see col. 5, lines 48-51; col. 6, lines 4-10). The fatty acids used in preparing the esters contain from 8-22 carbon atoms (see col. 3, lines 31-33). The fatty acid ester is preferably a partial fatty acid ester of a polyhydric alcohol such as glycerol monooleate (see col. 6, lines 12-29).

The alkoxyated amines are of the formula set forth at col. 6, line s30-35, wherein R^1 is an alkyl or alkenyl group having about 14 to about 30 carbon atoms, R^2 and R^3 are vicinal alkylene groups and each x and y is an integer of at least 1, the total of x and y being about 6 or less (see col. 6, lines 38-43).

Daly teaches that conventional additives may be included in the fuel additive composition. The additive composition may be diluted with a normally liquid organic diluent such as benzene, toluene and xylene to form a concentrate. The concentrate contains from about 10-90% by weight of the additive (90-10% by weight solvent) and may contain one or more conventional additives (see col. 7, line 63 through col. 8, lines 1-3). Daly teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Daly differs from the claims in that he does not specifically teach the addition of 0.001-10% by wt of a pour point depressant. However, JP teaches this difference in that it teaches a fuel composition comprising an ethylene vinyl acetate pour point depressant. See abstract in its entirety.

It would have obvious to one of ordinary skill in the art to add a pour point depressant to the gasoline additive concentrate because Daly teaches that the fuel of his invention may contain other additives which are well known to those of skill in the art (see col. 7, lines 50-52) and JP teaches a conventional pour point depressant that is added to a gasoline composition such as that of Daly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the proportions of the pour point depressant through

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routine experimentation for best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

In the second aspect, Daly differs from the claims in that he does not exemplify an additive composition wherein both the partial ester and alkoxylated amine are present. However, it would have been obvious to one of ordinary skill in the art to have combined these two components because Daly teaches that component (B) may be a mixture of two or more of the compounds that may be used as component (B).

Daly fails to teach that the concentrate composition is a liquid at a temperature from about 0 to minus 18 °C. However, since Daly has set forth that all of the recited components of his invention may be present in his fuel additive concentrate and he teaches all of the claimed components, it would be reasonable to expect that the additive concentrate of his invention would be a liquid at a temperature from 0 to minus 18 °C.

3. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 6,224,642) and JP 58117282 as applied to the claims above, further in view of Jung 5,503,645.

Daly and JP have been discussed above. JP fails to teach that the pour point depressant is a terpolymer of a dialkyl fumarate, a vinyl carboxylate and a vinyl ether. However, Jung teaches a fuel composition wherein the pour point depressant is either ethylene vinyl acetate copolymer (EVA) or a terpolymer of dialkyl fumarate-vinyl ester-vinyl ether (see abstract; col. 2, lines 20-26; col. 4, lines 3-12).

It would have been obvious to one of ordinary skill in the art to replace EVA with a terpolymer of dialkyl fumarate-vinyl ester-vinyl ether because Jung teaches that these polymers are equivalent for the purpose of reducing the pour points of fuel compositions.

4. Claims 39 and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 6,224,642) in view of EP 869 163.

Daly has been discussed above. Daly fails to teach the specifics regarding the ashless dispersants. However, EP teaches a fuel composition comprising an alkoxyated fatty amine as in the present claims and in Daly in combination with at least one nitrogen detergent such as those of the present invention (see abstract; page 3, lines 1-48).

It would have been obvious to one of ordinary skill in the art to include the nitrogen containing detergents because Daly teaches that his composition may contain ashless dispersants and EP teaches that the ashless dispersants polyetheramine, polyalkyleneamine and Mannich bases are conventional dispersants that are combined with alkoxyated fatty amine to impart reduced friction in the operation of an internal combustion engine.

5. Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that unexpected results are obtained with the gasoline fuel composition in Example 2.

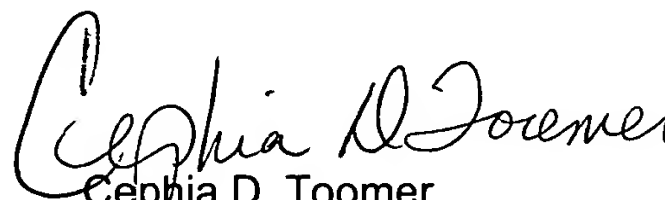
The examiner respectfully disagrees. Applicant's data have been considered but are not deemed to constitute expected results. The showings are not commensurate in scope with the claims. The claims are directed to specific compounds in specific proportions whereas the claims are directed to generic compounds and are devoid of proportions. The examiner cannot ascertain if unexpected results are obtained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cephia D. Toomer
Primary Examiner
Art Unit 1714

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